10/692,151

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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	BEILSTEIN updated with new compounds
NEWS 12	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 13	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 14	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 15	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 16	AUG 27	USPATOLD now available on STN
NEWS 17	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 18	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 19	SEP 13	FORIS renamed to SOFIS
NEWS 20	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 21	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 22	SEP 17	CAplus coverage extended to include traditional medicine patents

NEWS EXPRESS 05 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 05 SEPTEMBER 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

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*PROMT          - PROMT from 1978 - present

  * The files listed above are temporarily unavailable.

FILE 'HOME' ENTERED AT 08:22:22 ON 19 SEP 2007

=> s [KNT][HPN][AV][HQ]YWT[HQ]MFY[ST]/SQSP
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> FIL REGISTRY
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   1.05       1.05

FILE 'REGISTRY' ENTERED AT 08:25:32 ON 19 SEP 2007
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   18 SEP 2007  HIGHEST RN 947490-11-1
DICTIONARY FILE UPDATES:  18 SEP 2007  HIGHEST RN 947490-11-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s [KNT][HPN][AV][HQ]YWT[HQ]MFY[ST]/SQSP
L1          11 [KNT][HPN][AV][HQ]YWT[HQ]MFY[ST]/SQSP

=> d L1 ibib abs hitstr tot
'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG     - RN
SAM     - Index Name, MF, and structure - no RN
FIDE    - All substance data, except sequence data
IDE     - FIDE, but only 50 names
```

```
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.

For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):END

=> D L1 CN SEQ 1-11

L1   ANSWER 1 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
CN   L-Histidine, L-lysyl-L-prolyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-
     L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-L-
     threonylglycylglycylglycyl-L-seryl-L-alanyl-L-α-glutamyl-L-threonyl-
     L-valylglycylglycylglycyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-
     histidyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   29: PN: US6747135 SEQID: 42 unclaimed sequence

SEQ      1 KPVQYWTQMF YTGGGSAETV GGGHHHHHH
           ========== ==
HITS AT:   1-12

L1   ANSWER 2 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
CN   L-Histidine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-
     tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-L-
     serylglycylglycylglycyl-L-seryl-L-alanyl-L-α-glutamyl-L-threonyl-L-
     valylglycylglycylglycyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-
     histidyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   28: PN: US6747135 SEQID: 41 unclaimed sequence

SEQ      1 KHVQYWTQMF YSGGGSAETV GGGHHHHHH
           ========== ==
HITS AT:   1-12

L1   ANSWER 3 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
CN   L-Histidine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-
     tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-L-
     serylglycylglycylglycyl-L-seryl-L-alanyl-L-α-glutamyl-L-threonyl-L-
     valylglycylglycylglycyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl- (9CI)
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(CA INDEX NAME)
OTHER NAMES:
CN 31: PN: WO0023463 FIGURE: 7 unclaimed sequence

SEQ 1 KHVQYWTQMF YSGGGSAETV GGGHHHHH
========== ==
HITS AT: 1-12

L1 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
CN L-Serine, L-threonyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 101: PN: WO0023463 SEQID: 21 claimed sequence
CN 126: PN: US6747135 SEQID: 21 unclaimed sequence

SEQ 1 THVQYWTQMF YS
========== ==
HITS AT: 1-12

L1 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
CN L-Serine, L-asparaginyl-L-histidyl-L-valyl-L-histidyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 100: PN: WO0023463 SEQID: 20 claimed sequence
CN 125: PN: US6747135 SEQID: 20 unclaimed sequence

SEQ 1 NHVHYWTQMF YS
========== ==
HITS AT: 1-12

L1 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
CN L-Threonine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 124: PN: US6747135 SEQID: 19 unclaimed sequence
CN 99: PN: WO0023463 SEQID: 19 claimed sequence

SEQ 1 KHVQYWTQMF YT
========== ==
HITS AT: 1-12

L1 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
CN L-Threonine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-histidyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 123: PN: US6747135 SEQID: 18 unclaimed sequence
CN 98: PN: WO0023463 SEQID: 18 claimed sequence

SEQ 1 KHVQYWTHMF YT
========== ==
HITS AT: 1-12

L1 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
CN L-Threonine, L-lysyl-L-asparaginyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 122: PN: US6747135 SEQID: 17 unclaimed sequence
CN 97: PN: WO0023463 SEQID: 17 claimed sequence

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SEQ      1 KNVQYWTQMF YT
           ========== ==
HITS AT:   1-12

L1   ANSWER 9 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
CN   L-Serine, L-lysyl-L-prolyl-L-alanyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-
     threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   121: PN: US6747135 SEQID: 16 unclaimed sequence
CN   96: PN: WO0023463 SEQID: 16 claimed sequence

SEQ      1 KPAQYWTQMF YS
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HITS AT:   1-12

L1   ANSWER 10 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
CN   L-Threonine, L-lysyl-L-prolyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-
     L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   95: PN: WO0023463 SEQID: 15 claimed sequence

SEQ      1 KPVQYWTQMF YT
           ========== ==
HITS AT:   1-12

L1   ANSWER 11 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
CN   L-Serine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-
     threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   116: PN: US6747135 SEQID: 1 unclaimed sequence
CN   81: PN: WO0023463 SEQID: 1 claimed sequence

SEQ      1 KHVQYWTQMF YS
           ========== ==
HITS AT:   1-12


=> DISPLAY L1 1-11 ALL

L1   ANSWER 1 OF 11  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   700846-47-5  REGISTRY
ED   Entered STN:  29 Jun 2004
CN   L-Histidine, L-lysyl-L-prolyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-
     L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-L-
     threonylglycylglycylglycyl-L-seryl-L-alanyl-L-α-glutamyl-L-threonyl-
     L-valylglycylglycylglycyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-
     histidyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   29: PN: US6747135 SEQID: 42 unclaimed sequence
FS   PROTEIN SEQUENCE; STEREOSEARCH
SQL  29

PATENT ANNOTATIONS (PNTE):
Sequence |Patent
Source   |Reference
=========+==========
Not Given|US6747135
         |unclaimed
         |SEQID 42
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```
SEQ      1 KPVQYWTQMF YTGGGSAETV GGGHHHHHH
           ========== ==
HITS AT:   1-12

SEQ3     1 Lys-Pro-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
           === === === === === === === === === ===
        11 Tyr-Thr-Gly-Gly-Gly-Ser-Ala-Glu-Thr-Val-
           === ===
        21 Gly-Gly-Gly-His-His-His-His-His-His
HITS AT:   1-12

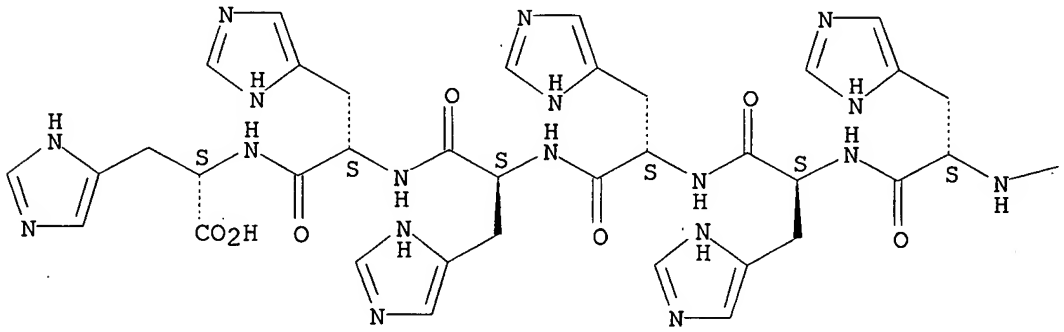
MF   C145 H199 N45 O40 S
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
```

Ring System Data

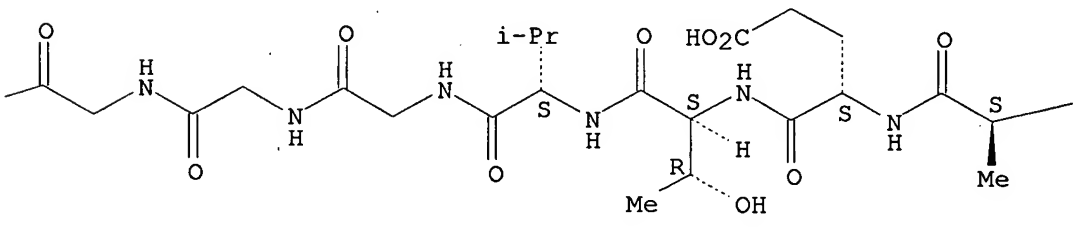
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C4N	NC4	5	C4N	16.136.1	1
C3N2	NCNC2	5	C3N2	16.195.24	6
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

Absolute stereochemistry.

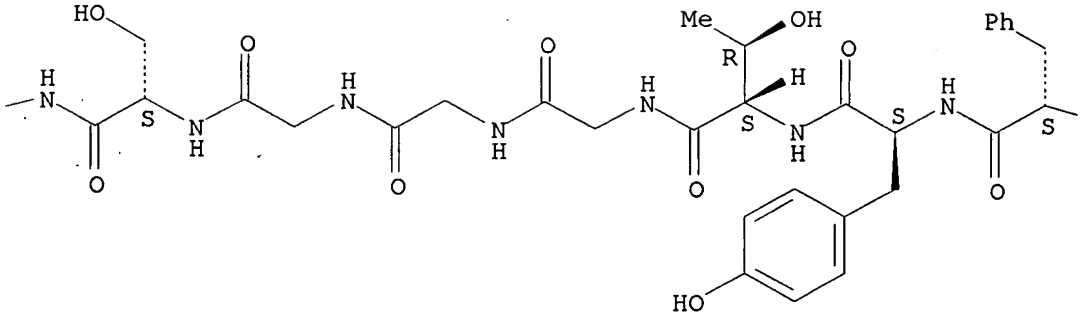
PAGE 1-A



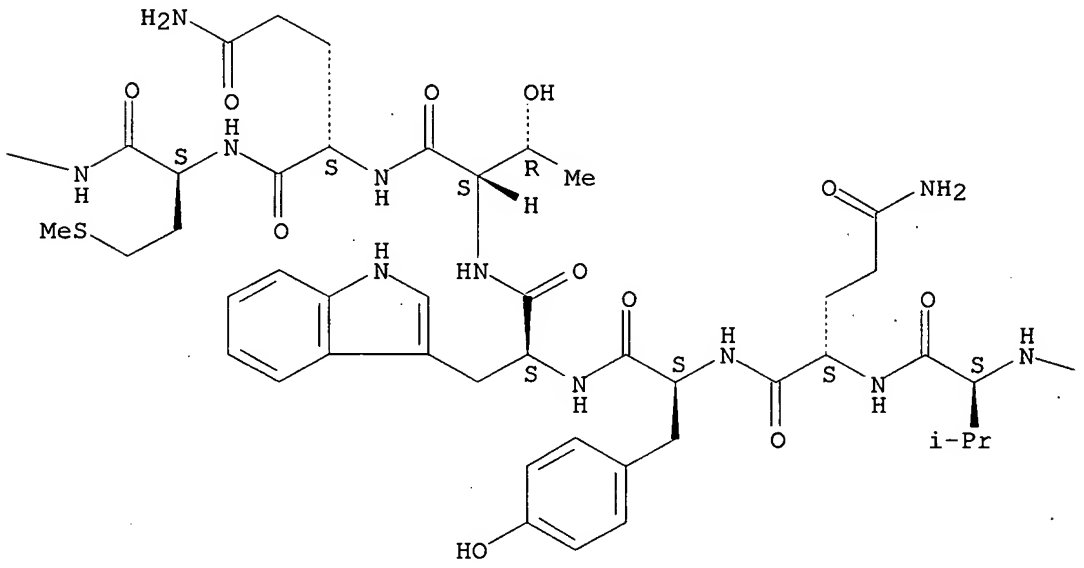
PAGE 1-B

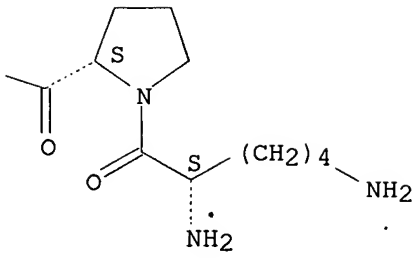


PAGE 1-C



PAGE 1-D





Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Density (DEN)	1.411+/-0.06 g/cm**3	760 Torr	(1)
Freely Rotatable Bonds (FRB)	106		(1)
H acceptors (HAC)	85		(1)
H donors (HD)	50		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	135		(1)
LOGP (LOGP)	-8.902+/-1.225	25 deg C	(1)
Molar Volume (MVOL)	2298.5+/-3.0 cm**3/mol	20 deg C 760 Torr	(1)
Molecular Weight (MW)	3244.47		(1)
Polar Surface Area (PSA)	1353.38 A**2		(1)

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.19 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13

ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014

PRAI US 1998-104465P 19981016
US 1999-419381 19991015

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3
265979-64-4 265979-65-5 265979-66-6 265979-69-9 265979-70-2

265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7
265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
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700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

L1 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700846-46-4 REGISTRY
ED Entered STN: 29 Jun 2004
CN L-Histidine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-L-serylglycylglycylglycyl-L-seryl-L-alanyl-L-α-glutamyl-L-threonyl-L-valylglycylglycylglycyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 28: PN: US6747135 SEQID: 41 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 29

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US6747135 unclaimed SEQID 41

SEQ 1 KHVQYWTQMF YSGGGSAETV GGGHHHHHH
========== ==
HITS AT: 1-12

SEQ3 1 Lys-His-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
=== === === === === === === === === ===
11 Tyr-Ser-Gly-Gly-Gly-Ser-Ala-Glu-Thr-Val-
=== ===
21 Gly-Gly-Gly-His-His-His-His-His-His
HITS AT: 1-12

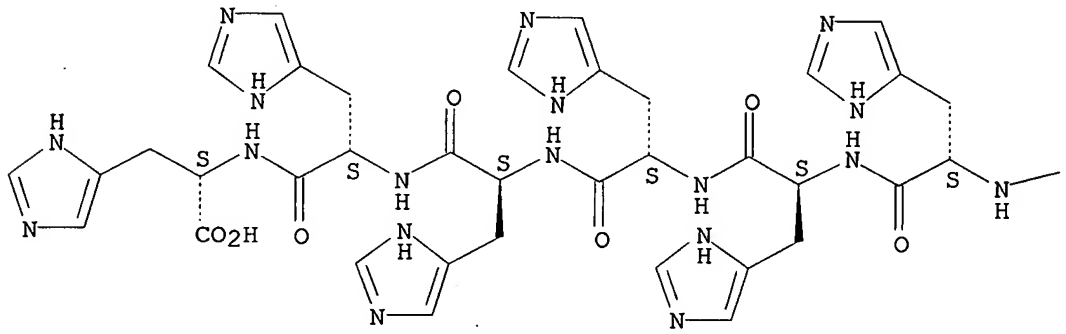
MF C145 H197 N47 O40 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C3N2	NCNC2	5	C3N2	16.195.24	7
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

Absolute stereochemistry.

PAGE 1-A



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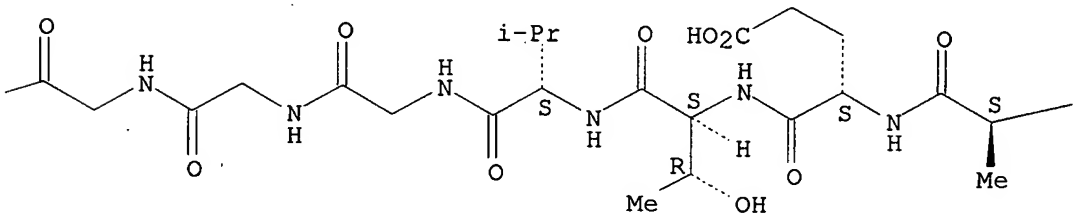

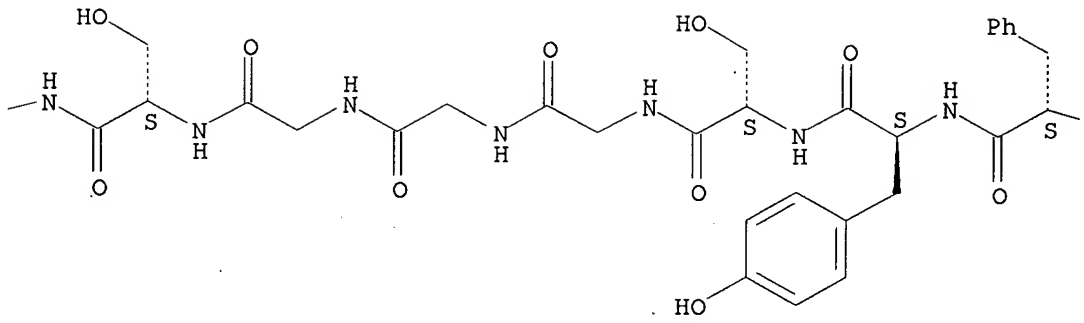

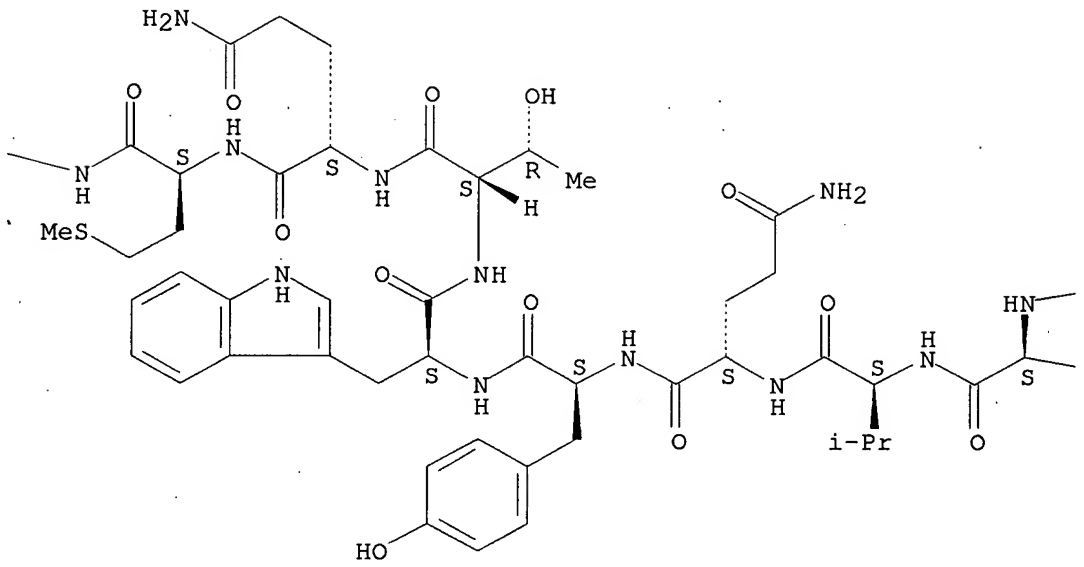

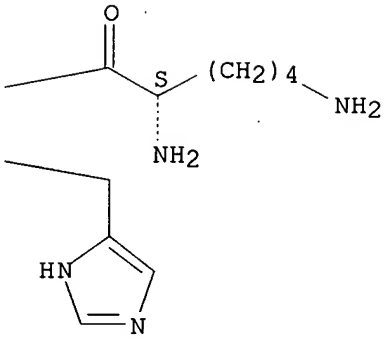

Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Density (DEN)	1.420+/-0.06 g/cm**3	760 Torr	(1)
Freely Rotatable Bonds (FRB)	109		(1)
H acceptors (HAC)	87		(1)
H donors (HD)	52		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	139		(1)
LOGP (LOGP)	-9.971+/-1.225	25 deg C	(1)
Molar Volume (MVOL)	2302.5+/-3.0 cm**3/mol	20 deg C 760 Torr	(1)
Molecular Weight (MW)	3270.47		(1)
Polar Surface Area (PSA)	1390.85 A**2		(1)

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.19 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13

ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014

PRAI US 1998-104465P 19981016
US 1999-419381 19991015

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
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265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
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700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

L1 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265980-08-3 REGISTRY
ED Entered STN: 22 May 2000
CN L-Histidine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-L-serylglycylglycylglycyl-L-seryl-L-alanyl-L-α-glutamyl-L-threonyl-L-valylglycylglycylglycyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 31: PN: WO0023463 FIGURE: 7 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 28

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 unclaimed FIGURE 7

SEQ 1 KHVQYWTQMF YSGGGSAETV GGGHHHHH
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HITS AT: 1-12

```
SEQ3      1 Lys-His-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
            === === === === === === === === === ===
         11 Tyr-Ser-Gly-Gly-Gly-Ser-Ala-Glu-Thr-Val-
            === ===
         21 Gly-Gly-Gly-His-His-His-His-His
HITS AT:    1-12

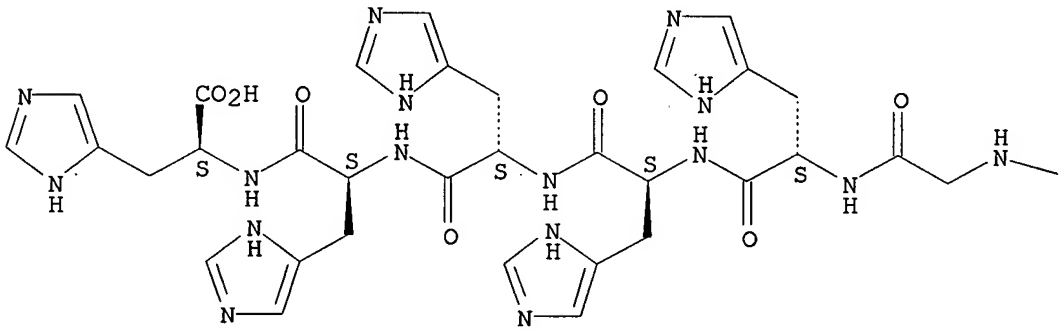
MF    C139 H190 N44 O39 S
SR    CA
LC    STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
```

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C3N2	NCNC2	5	C3N2	16.195.24	6
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

Absolute stereochemistry.

PAGE 1-A



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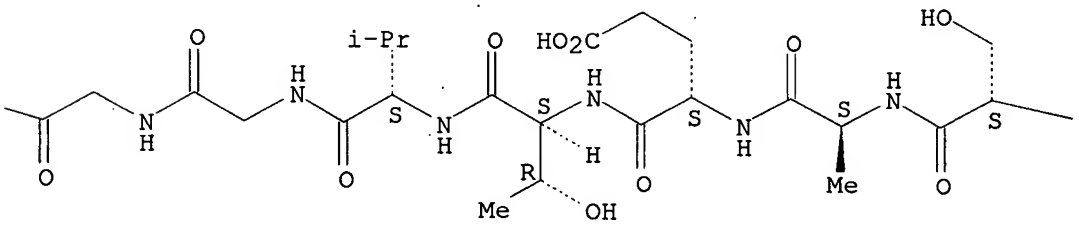

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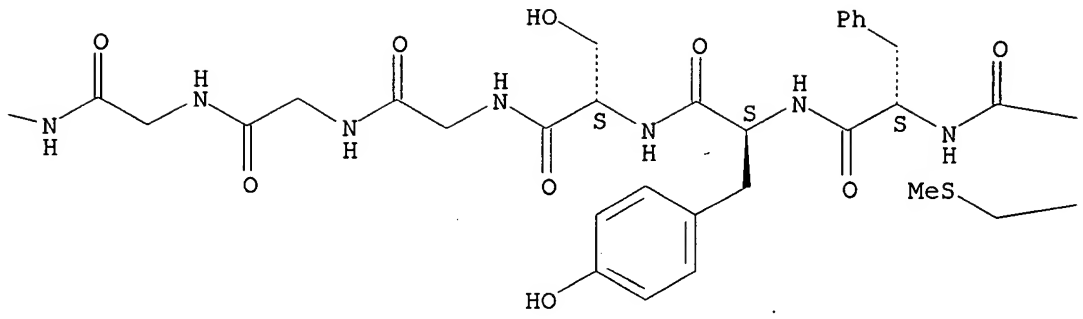

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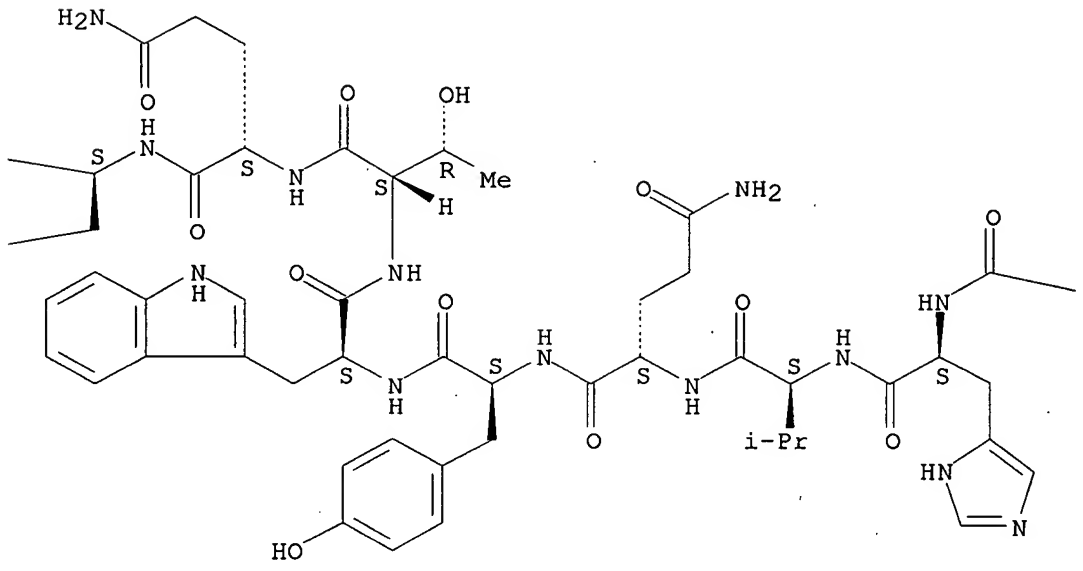

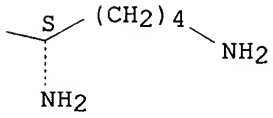

Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Density (DEN)	1.414+/-0.06 g/cm**3	760 Torr	(1)
Freely Rotatable Bonds (FRB)	105		(1)
H acceptors (HAC)	83		(1)
H donors (HD)	50		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	133		(1)
LOGP (LOGP)	-9.166+/-1.215	25 deg C	(1)
Molar Volume (MVOL)	2214.5+/-3.0 cm**3/mol	20 deg C 760 Torr	(1)
Molecular Weight (MW)	3133.33		(1)
Polar Surface Area (PSA)	1333.07 A**2		(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)

IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)

IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4
265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1
265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7
265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4
265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9
265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6
265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1
265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8
265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3
265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5
265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0
265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8
266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for

determination of biomols.)
IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9
247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)
IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-74-6 REGISTRY
ED Entered STN: 22 May 2000
CN L-Serine, L-threonyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 101: PN: WO0023463 SEQID: 21 claimed sequence
CN 126: PN: US6747135 SEQID: 21 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 21

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HITS AT: 1-12

SEQ3 1 Thr-His-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
=== === === === === === === === === ===
11 Tyr-Ser
=== ===
HITS AT: 1-12

MF C75 H99 N17 O20 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP (Properties); USES (Uses)

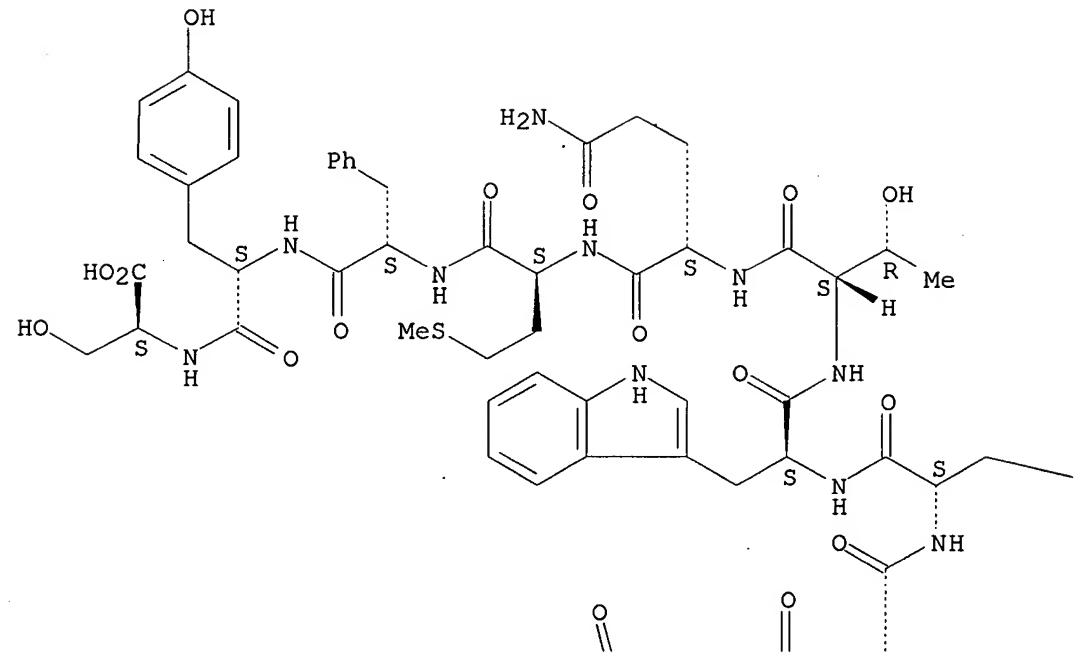
Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count

C3N2	|NCNC2	|5	|C3N2	|16.195.24 |1
C6	|C6	|6	|C6	|46.150.18 |3
C4N-C6	|NC4-C6	|5-6	|C8N	|333.151.57|1

Absolute stereochemistry.

PAGE 1-A



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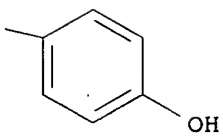
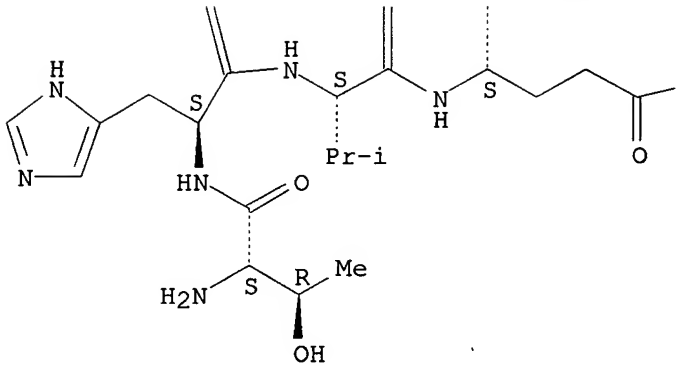
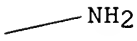






Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	2032.0+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.383+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	356.09+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1182.7+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	52		(1)
H acceptors (HAC)	37		(1)
H donors (HD)	25		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	62		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-3.98	pH 1 25 deg C	(1)

LOGD (LOGD)	-3.88	pH 2 25 deg C	(1)
LOGD (LOGD)	-3.62	pH 3 25 deg C	(1)
LOGD (LOGD)	-3.38	pH 4 25 deg C	(1)
LOGD (LOGD)	-3.26	pH 5 25 deg C	(1)
LOGD (LOGD)	-2.91	pH 6 25 deg C	(1)
LOGD (LOGD)	-2.82	pH 7 25 deg C	(1)
LOGD (LOGD)	-3.35	pH 8 25 deg C	(1)
LOGD (LOGD)	-3.62	pH 9 25 deg C	(1)
LOGD (LOGD)	-4.19	pH 10 25 deg C	(1)
LOGP (LOGP)	0.159+/-1.035	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	410 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	37 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	4.6 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	3.0 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	19 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	210 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	2.7 g/L	Unbuffered Water, pH 6.43, 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.63 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.26 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.023 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0029 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0019 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.012 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.13 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0017 mol/L	Unbuffered Water, pH 6.43, 25 deg C	(1)
Molar Volume (MVOL)	1149.5+/-3.0 cm**3/mol	20 deg C, 760 Torr	(1)
Molecular Weight (MW)	1590.76		(1)
PKA (PKA)	3.23+/-0.10	Most Acidic, 25 deg C	(1)
PKA (PKA)	6.69+/-0.61	Most Basic, 25 deg C	(1)
Polar Surface Area (PSA)	640.52 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014
PRAI	US 1998-104465P	19981016			
	US 1999-419381	19991015			

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide
IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)
IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)
IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)
IT Aptamers
(Peptide; fluorescent dye binding peptides)
IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)
IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)
IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)
IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)
IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)
IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9

700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)
IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra
head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3
265979-64-4 265979-65-5 265979-66-6 265979-69-9 265979-70-2
265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7
265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-92-8
265979-93-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3
265979-98-4 265979-99-5 265980-00-5 265980-01-6 265980-02-7
265980-03-8 265980-04-9 265980-05-0 265980-07-2 629618-70-8
700846-44-2 700846-45-3 700846-46-4 700846-47-5 700846-48-6
700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)

IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)

IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4 265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4 265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9 265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5 265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0 265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8 266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)

IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9 247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2

266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)
IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra
head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of
biomols.)

L1 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-73-5 REGISTRY
ED Entered STN: 22 May 2000
CN L-Serine, L-asparaginyl-L-histidyl-L-valyl-L-histidyl-L-tyrosyl-L-
tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-
(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 100: PN: WO0023463 SEQID: 20 claimed sequence
CN 125: PN: US6747135 SEQID: 20 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 20

SEQ 1 NHVHYWTQMF YS
========== ==
HITS AT: 1-12

SEQ3 1 Asn-His-Val-His-Tyr-Trp-Thr-Gln-Met-Phe-
=== === === === === === === === === ===
11 Tyr-Ser
=== ===
HITS AT: 1-12

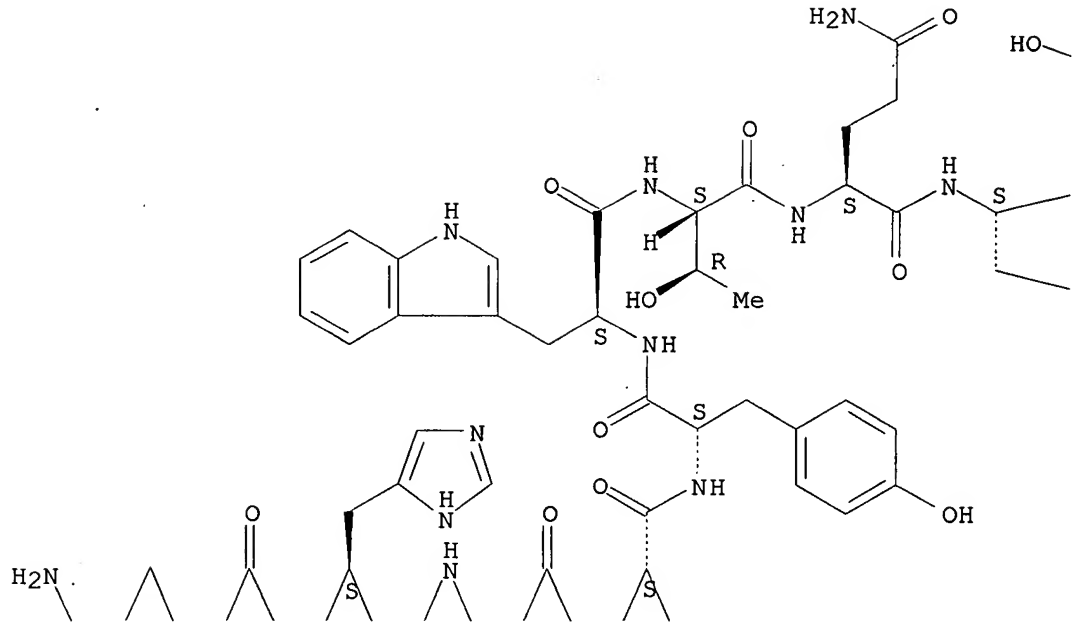
MF C76 H97 N19 O19 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP
(Properties); USES (Uses)

Ring System Data

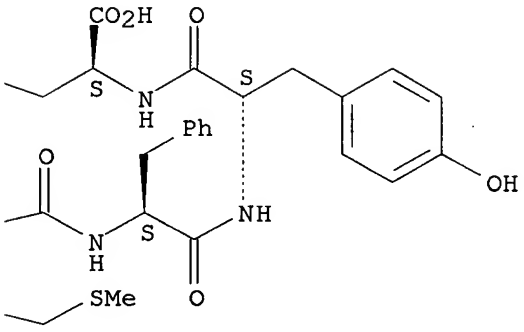
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C3N2	NCNC2	5	C3N2	16.195.24	2
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

Absolute stereochemistry.

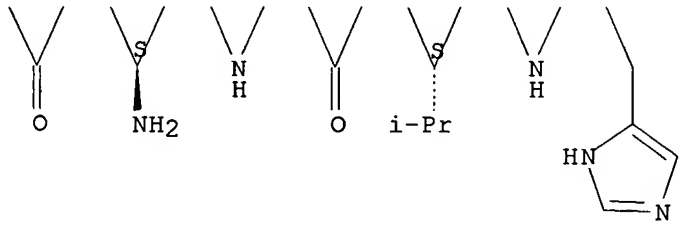
PAGE 1-A



PAGE 1-B



PAGE 2-A



Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	2092.9+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.401+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	370.39+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1219.5+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	51		(1)
H acceptors (HAC)	38		(1)
H donors (HD)	25		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	63		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-5.18	pH 1 25 deg C	(1)
LOGD (LOGD)	-5.08	pH 2 25 deg C	(1)
LOGD (LOGD)	-4.82	pH 3 25 deg C	(1)
LOGD (LOGD)	-4.57	pH 4 25 deg C	(1)
LOGD (LOGD)	-4.38	pH 5 25 deg C	(1)
LOGD (LOGD)	-3.56	pH 6 25 deg C	(1)
LOGD (LOGD)	-3.04	pH 7 25 deg C	(1)
LOGD (LOGD)	-3.55	pH 8 25 deg C	(1)
LOGD (LOGD)	-3.82	pH 9 25 deg C	(1)
LOGD (LOGD)	-4.40	pH 10 25 deg C	(1)
LOGP (LOGP)	-0.042+/-1.043	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	19 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	4.4 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	26 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	290 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	60 g/L	Unbuffered Water pH 5.72 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.62 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 1 25 deg C	(1)

Molar Solubility (SLB.MOL)	0.62 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.012 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0027 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.016 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.18 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.037 mol/L	Unbuffered Water pH 5.72 25 deg C	(1)
Molar Volume (MVOL)	1150.8+/-3.0 cm**3/mol	20 deg C 760 Torr	(1)
Molecular Weight (MW)	1612.76		(1)
PKA (PKA)	3.23+/-0.10	Most Acidic 25 deg C	(1)
PKA (PKA)	6.68+/-0.61	Most Basic 25 deg C	(1)
Polar Surface Area (PSA)	648.97 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014
PRAI	US 1998-104465P	19981016			
	US 1999-419381	19991015			

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.
ST fluorescence dye binding peptide
IT Amino acids, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
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700846-44-2 700846-45-3 700846-46-4 700846-47-5 700846-48-6
700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS

(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library
IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)
IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)
IT Biochemical molecules

Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)

IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4
265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1
265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7
265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4
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265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6
265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1
265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8
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265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5
265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0
265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8
266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)

IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9
247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)

IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-72-4 REGISTRY
ED Entered STN: 22 May 2000
CN L-Threonine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 124: PN: US6747135 SEQID: 19 unclaimed sequence
CN 99: PN: WO0023463 SEQID: 19 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 19

SEQ 1 KHVQYWTQMF YT
========== ==
HITS AT: 1-12

SEQ3 1 Lys-His-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
=== === === === === === === === === ===
11 Tyr-Thr
=== ===
HITS AT: 1-12

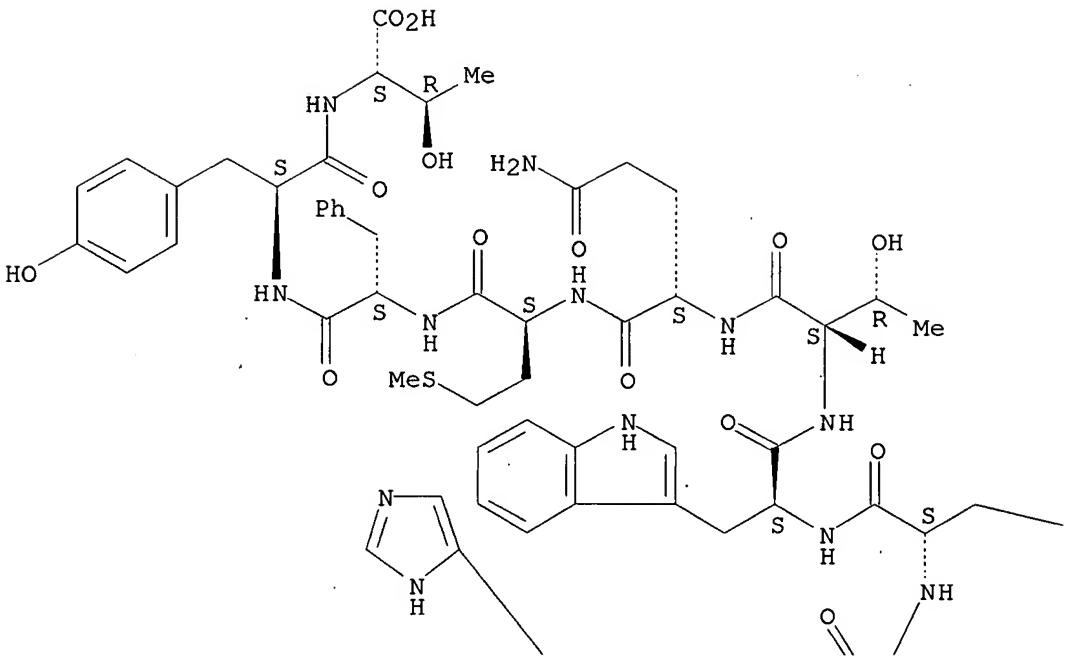
MF C78 H106 N18 O19 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

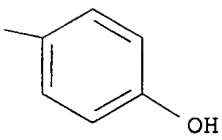
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C3N2	NCNC2	5	C3N2	16.195.24	1
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

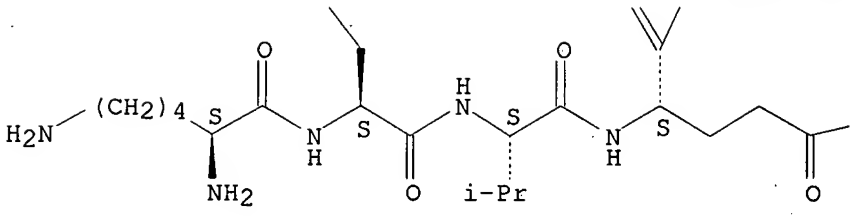
Absolute stereochemistry.

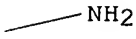
PAGE 1-A



PAGE 1-B







Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	2008.6+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.353+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	350.67+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1168.6+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	55		(1)
H acceptors (HAC)	37		(1)
H donors (HD)	26		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	63		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-4.69	pH 1 25 deg C	(1)
LOGD (LOGD)	-4.58	pH 2 25 deg C	(1)
LOGD (LOGD)	-4.32	pH 3 25 deg C	(1)
LOGD (LOGD)	-4.09	pH 4 25 deg C	(1)
LOGD (LOGD)	-3.97	pH 5 25 deg C	(1)
LOGD (LOGD)	-3.55	pH 6 25 deg C	(1)

LOGD (LOGD)	-2.67	pH 7 25 deg C	(1)
LOGD (LOGD)	-2.16	pH 8 25 deg C	(1)
LOGD (LOGD)	-2.12	pH 9 25 deg C	(1)
LOGD (LOGD)	-2.72	pH 10 25 deg C	(1)
LOGP (LOGP)	0.452+/-1.030	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	100 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	3.3 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.77 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.69 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	3.1 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.65 g/L	Unbuffered Water, pH 8.61, 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.61 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.062 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0020 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00047 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00042 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0019 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00040 mol/L	Unbuffered Water, pH 8.61, 25 deg C	(1)
Molar Volume (MVOL)	1205.2+/-3.0 cm**3/mol	20 deg C, 760 Torr	(1)
Molecular Weight (MW)	1631.85		(1)
PKA (PKA)	3.21+/-0.10	Most Acidic, 25 deg C	(1)
PKA (PKA)	10.47+/-0.10	Most Basic, 25 deg C	(1)
Polar Surface Area (PSA)	646.31 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides

IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
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	US 2004176578	A1	20040909	US 2003-692151	20031014

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(Fluorescent dye complex with; fluorescent dye binding peptides)

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RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

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700964-34-7 700964-35-8 700964-36-9
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(unclaimed protein sequence; fluorescent dye binding peptides)

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head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
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265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-92-8
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265979-98-4 265979-99-5 265980-00-5 265980-01-6 265980-02-7
265980-03-8 265980-04-9 265980-05-0 265980-07-2 629618-70-8
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700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9

RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,

DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)

IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)

IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4
265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1
265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7
265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4
265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9
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265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5
265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0
265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8
266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)

IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9
247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)

IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5 206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6 246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7 246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4 265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-71-3 REGISTRY
ED Entered STN: 22 May 2000
CN L-Threonine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-histidyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 123: PN: US6747135 SEQID: 18 unclaimed sequence
CN 98: PN: WO0023463 SEQID: 18 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 18

SEQ 1 KHVQYWTHMF YT
========== ==
HITS AT: 1-12

SEQ3 1 Lys-His-Val-Gln-Tyr-Trp-Thr-His-Met-Phe-
=== === === === === === === === === ===
11 Tyr-Thr
=== ===
HITS AT: 1-12

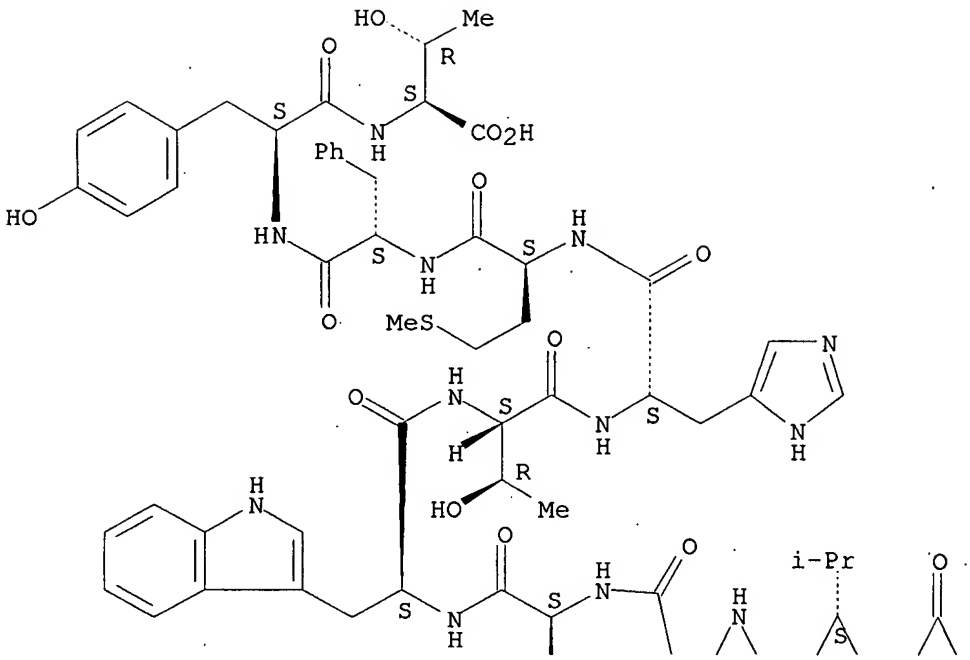
MF C79 H105 N19 O18 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

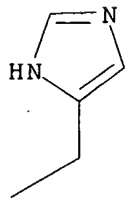
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C3N2	NCNC2	5	C3N2	16.195.24	2
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

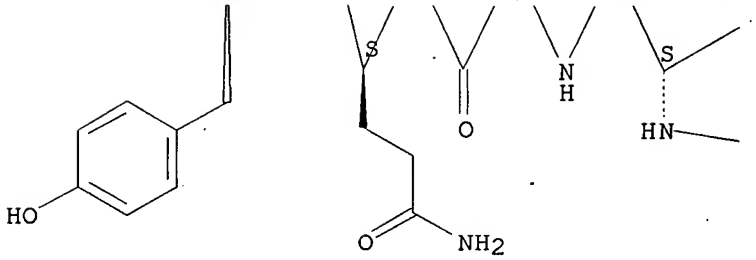
Absolute stereochemistry.

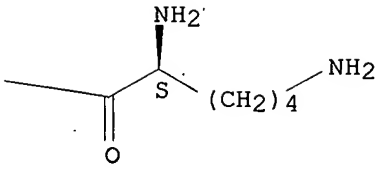
PAGE 1-A



PAGE 1-B







Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	2019.1+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.363+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	353.09+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1174.9+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	54		(1)
H acceptors (HAC)	37		(1)
H donors (HD)	25		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	62		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)

LOGD (LOGD)	-5.30	pH 1 25 deg C	(1)
LOGD (LOGD)	-5.20	pH 2 25 deg C	(1)
LOGD (LOGD)	-4.93	pH 3 25 deg C	(1)
LOGD (LOGD)	-4.70	pH 4 25 deg C	(1)
LOGD (LOGD)	-4.57	pH 5 25 deg C	(1)
LOGD (LOGD)	-3.80	pH 6 25 deg C	(1)
LOGD (LOGD)	-2.34	pH 7 25 deg C	(1)
LOGD (LOGD)	-1.78	pH 8 25 deg C	(1)
LOGD (LOGD)	-1.73	pH 9 25 deg C	(1)
LOGD (LOGD)	-2.33	pH 10 25 deg C	(1)
LOGP (LOGP)	0.840+/-1.036	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	280 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	2.0 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.43 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.38 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.8 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.36 g/L	Unbuffered Water pH 8.58 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.61 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.61 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.17 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0012 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00026 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00023 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0011 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00022 mol/L	Unbuffered Water pH 8.58 25 deg C	(1)
Molar Volume (MVOL)	1203.6+/-3.0 cm**3/mol	20 deg C 760 Torr	(1)
Molecular Weight (MW)	1640.86		(1)
PKA (PKA)	3.21+/-0.10	Most Acidic 25 deg C	(1)
PKA (PKA)	10.47+/-0.10	Most Basic 25 deg C	(1)
Polar Surface Area (PSA)	631.90 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014
PRAI	US 1998-104465P	19981016			
	US 1999-419381	19991015			

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide
IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)
IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)
IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)
IT Aptamers
(Peptide; fluorescent dye binding peptides)
IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)
IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)
IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)
IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)
IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)
IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
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700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)
IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra
head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
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265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-92-8
265979-93-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3
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700846-44-2 700846-45-3 700846-46-4 700846-47-5 700846-48-6
700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)

IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)

IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4 265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4 265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9 265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5 265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0 265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8 266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)

IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9

247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)
IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-70-2 REGISTRY
ED Entered STN: 22 May 2000
CN L-Threonine, L-lysyl-L-asparaginyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 122: PN: US6747135 SEQID: 17 unclaimed sequence
CN 97: PN: WO0023463 SEQID: 17 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 17

```
SEQ      1 KNVQYWTQMF YT
           ========== ==
HITS AT:   1-12

SEQ3     1 Lys-Asn-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
           === === === === === === === === === ===
        11 Tyr-Thr
           === ===
HITS AT:   1-12
```

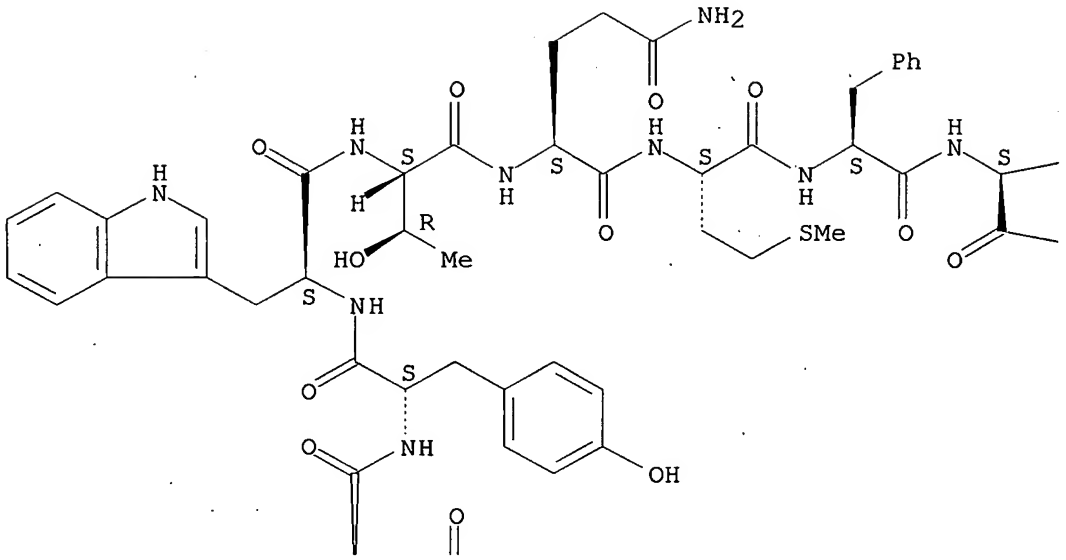
MF C76 H105 N17 O20 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

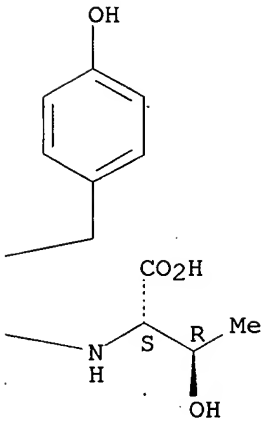
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

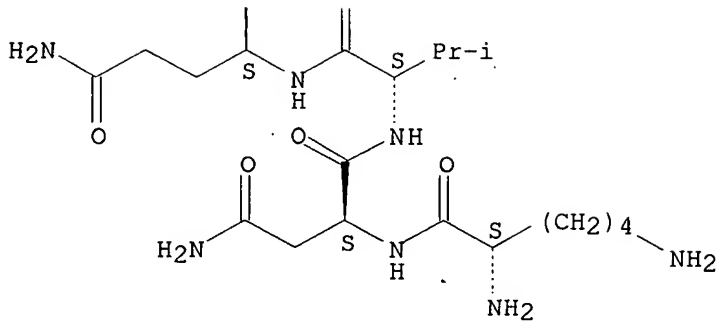
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B





Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	2001.6+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.351+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	349.04+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1164.3+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	55		(1)
H acceptors (HAC)	37		(1)
H donors (HD)	27		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	64		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-3.99	pH 1 25 deg C	(1)
LOGD (LOGD)	-3.88	pH 2 25 deg C	(1)
LOGD (LOGD)	-3.62	pH 3 25 deg C	(1)
LOGD (LOGD)	-3.40	pH 4 25 deg C	(1)
LOGD (LOGD)	-3.34	pH 5 25 deg C	(1)
LOGD (LOGD)	-3.25	pH 6 25 deg C	(1)
LOGD (LOGD)	-2.86	pH 7 25 deg C	(1)
LOGD (LOGD)	-2.46	pH 8 25 deg C	(1)
LOGD (LOGD)	-2.42	pH 9 25 deg C	(1)
LOGD (LOGD)	-3.02	pH 10 25 deg C	(1)
LOGP (LOGP)	0.151+/-1.034	25 deg C	(1)

Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	290 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	29 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	3.7 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.2 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.1 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	4.8 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.0 g/L	Unbuffered Water pH 8.62 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.62 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.18 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.018 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0023 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00074 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00066 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0030 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00063 mol/L	Unbuffered Water pH 8.62 25 deg C	(1)
Molar Volume (MVOL)	1190.2+/-3.0 cm**3/mol	20 deg C 760 Torr	(1)
Molecular Weight (MW)	1608.81		(1)
PKA (PKA)	3.21+/-0.10	Most Acidic 25 deg C	(1)
PKA (PKA)	10.47+/-0.10	Most Basic 25 deg C	(1)
Polar Surface Area (PSA)	660.72 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent

LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014
PRAI	US 1998-104465P	19981016			
	US 1999-419381	19991015			

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
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265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6

265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3
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265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7
265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-92-8
265979-93-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3
265979-98-4 265979-99-5 265980-00-5 265980-01-6 265980-02-7
265980-03-8 265980-04-9 265980-05-0 265980-07-2 629618-70-8
700846-44-2 700846-45-3 700846-46-4 700846-47-5 700846-48-6
700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)

IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)

IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4
265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1
265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7
265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4
265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9
265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6
265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1
265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8
265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3
265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5
265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0
265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)

IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8
266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)

IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9
247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)

IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9

265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-69-9 REGISTRY
ED Entered STN: 22 May 2000
CN L-Serine, L-lysyl-L-prolyl-L-alanyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 121: PN: US6747135 SEQID: 16 unclaimed sequence
CN 96: PN: WO0023463 SEQID: 16 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 16

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SEQ      1 KPAQYWTQMF YS
           ========== ==
HITS AT:   1-12

SEQ3     1 Lys-Pro-Ala-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
           === === === === === === === === === ===
        11 Tyr-Ser
           === ===
HITS AT:   1-12
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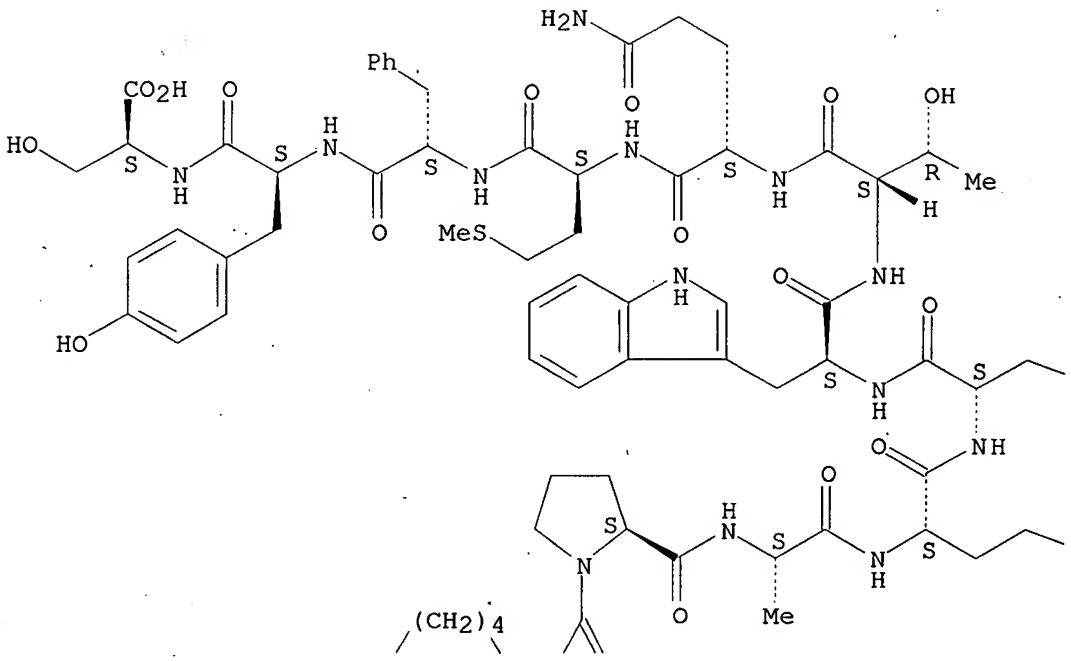
MF C74 H100 N16 O19 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

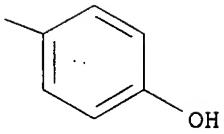
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C4N	NC4	5	C4N	16.136.1	1
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

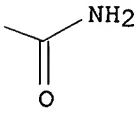
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B





PAGE 2-A

Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	1941.4+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.366+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	335.30+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1127.9+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	51		(1)
H acceptors (HAC)	35		(1)
H donors (HD)	24		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	59		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-4.19	pH 1 25 deg C	(1)
LOGD (LOGD)	-4.09	pH 2 25 deg C	(1)
LOGD (LOGD)	-3.83	pH 3 25 deg C	(1)
LOGD (LOGD)	-3.60	pH 4 25 deg C	(1)
LOGD (LOGD)	-3.55	pH 5 25 deg C	(1)
LOGD (LOGD)	-3.52	pH 6 25 deg C	(1)
LOGD (LOGD)	-3.32	pH 7 25 deg C	(1)
LOGD (LOGD)	-2.84	pH 8 25 deg C	(1)
LOGD (LOGD)	-2.65	pH 9 25 deg C	(1)
LOGD (LOGD)	-3.22	pH 10 25 deg C	(1)
LOGP (LOGP)	-0.052+/-1.029	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	140 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	15 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	2.5 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.5 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	6.4 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.5 g/L	Unbuffered Water pH 8.88	(1)

		25 deg C	
Molar Intrinsic Solubility (ISLB.MOL)	0.65 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.65 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.65 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.65 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.65 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.65 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.088 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0095 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0016 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00097 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0041 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00096 mol/L	Unbuffered Water	(1)
		pH 8.88	
		25 deg C	
Molar Volume (MVOL)	1133.9+/-3.0 cm**3/mol	20 deg C	(1)
		760 Torr	
Molecular Weight (MW)	1549.75		(1)
PKA (PKA)	3.23+/-0.10	Most Acidic	(1)
		25 deg C	
PKA (PKA)	10.49+/-0.10	Most Basic	(1)
		25 deg C	
Polar Surface Area (PSA)	608.84 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014
PRAI	US 1998-104465P		19981016		
	US 1999-419381		19991015		

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides

find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3
265979-64-4 265979-65-5 265979-66-6 265979-69-9 265979-70-2
265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7
265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-92-8
265979-93-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3
265979-98-4 265979-99-5 265980-00-5 265980-01-6 265980-02-7
265980-03-8 265980-04-9 265980-05-0 265980-07-2 629618-70-8
700846-44-2 700846-45-3 700846-46-4 700846-47-5 700846-48-6
700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA

TI Fluorescent dye binding peptides for the determination of biomolecules

IN Nolan, Garry P.; Rozinov, Michael N.

PA The Board of Trustees of the Leland Stanford Junior University, USA

SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2

DT Patent

LA English

IC ICM C07K007-08

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)
IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)
IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)
IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4
265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1
265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7
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265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6
265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1
265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8
265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3
265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5
265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0
265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)
IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8
266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)
IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9
247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)
IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-68-8 REGISTRY
ED Entered STN: 22 May 2000
CN L-Threonine, L-lysyl-L-prolyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 95: PN: WO0023463 SEQID: 15 claimed sequence

FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 15

SEQ 1 KPVQYWTQMF YT
     ========== ==
HITS AT: 1-12

SEQ3 1 Lys-Pro-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
      === === === === === === === === === ===
     11 Tyr-Thr
      === ===
HITS AT: 1-12

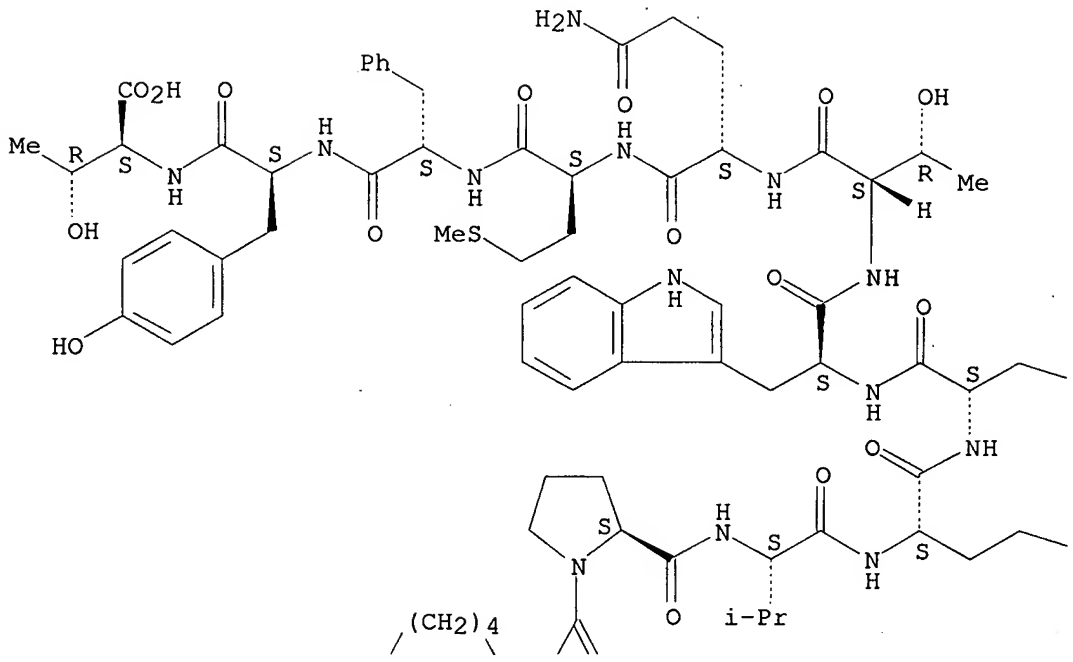
MF C77 H106 N16 O19 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

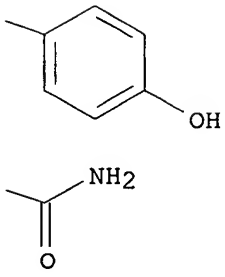
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C4N	NC4	5	C4N	16.136.1	1
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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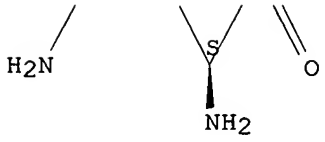


Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	1925.1+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.344+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	331.62+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1118.1+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	52		(1)
H acceptors (HAC)	35		(1)
H donors (HD)	24		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	59		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-2.97	pH 1 25 deg C	(1)
LOGD (LOGD)	-2.86	pH 2 25 deg C	(1)
LOGD (LOGD)	-2.60	pH 3 25 deg C	(1)
LOGD (LOGD)	-2.37	pH 4 25 deg C	(1)
LOGD (LOGD)	-2.33	pH 5 25 deg C	(1)
LOGD (LOGD)	-2.29	pH 6 25 deg C	(1)
LOGD (LOGD)	-2.09	pH 7 25 deg C	(1)
LOGD (LOGD)	-1.62	pH 8 25 deg C	(1)
LOGD (LOGD)	-1.42	pH 9 25 deg C	(1)
LOGD (LOGD)	-1.99	pH 10 25 deg C	(1)
LOGP (LOGP)	1.174+/-1.029	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	220 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	22 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	2.4 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.40 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.24 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.0 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.24 g/L	Unbuffered Water pH 8.82	(1)

		25 deg C	
Molar Intrinsic Solubility (ISLB.MOL)	0.63 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.63 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.14 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.014 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0015 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00025 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00015 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00063 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00015 mol/L	Unbuffered Water	(1)
		pH 8.82	
		25 deg C	
Molar Volume (MVOL)	1184.2+/-3.0 cm**3/mol	20 deg C	(1)
		760 Torr	
Molecular Weight (MW)	1591.83		(1)
PKA (PKA)	3.21+/-0.10	Most Acidic	(1)
		25 deg C	
PKA (PKA)	10.49+/-0.10	Most Basic	(1)
		25 deg C	
Polar Surface Area (PSA)	608.84 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014

PRAI US 1998-104465P 19981016
US 1999-419381 19991015

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides

find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3
265979-64-4 265979-65-5 265979-66-6 265979-69-9 265979-70-2
265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7
265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-92-8
265979-93-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3
265979-98-4 265979-99-5 265980-00-5 265980-01-6 265980-02-7
265980-03-8 265980-04-9 265980-05-0 265980-07-2 629618-70-8
700846-44-2 700846-45-3 700846-46-4 700846-47-5 700846-48-6
700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

REFERENCE 2

AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015
	WO 2000023463	A3	20000817		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-104465P 19981016

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide fluorette phage library

IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)

IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)
IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)
IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)
IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4
265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1
265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7
265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4
265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9
265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6
265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1
265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8
265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3
265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5
265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0
265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)
IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8
266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)
IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9
247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2
266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination
of biomols.)
IT 7361-43-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 246862-96-4 246862-97-5 246862-98-6
246862-99-7 246863-00-3 246863-01-4 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-94-0 265979-95-1 265979-96-2 265979-97-3 265979-98-4
265979-99-5 265980-08-3 266680-72-2
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides for determination of biomols.)

L1 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2007 ACS on STN
RN 265979-53-1 REGISTRY
ED Entered STN: 22 May 2000
CN L-Serine, L-lysyl-L-histidyl-L-valyl-L-glutaminyl-L-tyrosyl-L-tryptophyl-L-threonyl-L-glutaminyl-L-methionyl-L-phenylalanyl-L-tyrosyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 116: PN: US6747135 SEQID: 1 unclaimed sequence

CN 81: PN: WO0023463 SEQID: 1 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000023463 claimed SEQID 1

SEQ 1 KHVQYWTQMF YS
  ========== ==
HITS AT: 1-12

SEQ3 1 Lys-His-Val-Gln-Tyr-Trp-Thr-Gln-Met-Phe-
  === === === === === === === === === ===
  11 Tyr-Ser
  === ===
HITS AT: 1-12

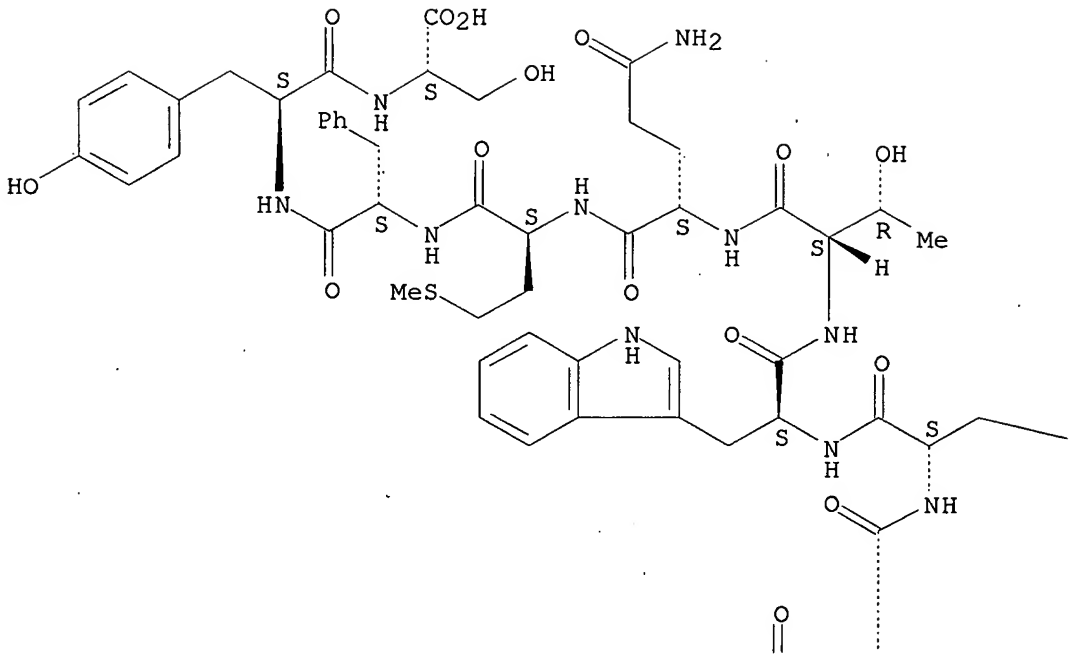
MF C77 H104 N18 O19 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

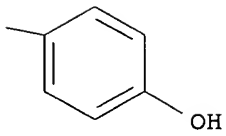
Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C3N2	NCNC2	5	C3N2	16.195.24	1
C6	C6	6	C6	46.150.18	3
C4N-C6	NC4-C6	5-6	C8N	333.151.57	1

Absolute stereochemistry.

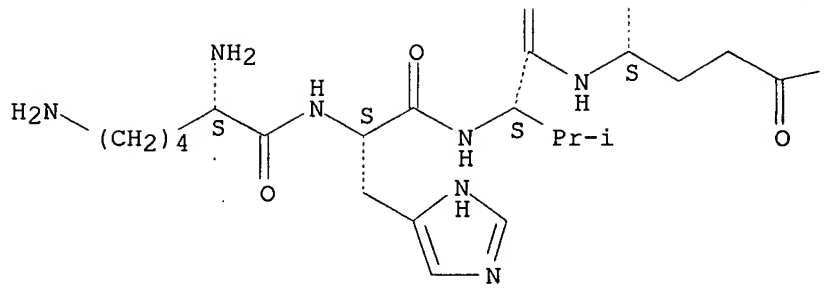
PAGE 1-A



PAGE 1-B



PAGE 2-A



PAGE 2-B

Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1.0	pH 10 25 deg C	(1)
Boiling Point (BP)	2015.9+/-65.0 deg C	760 Torr	(1)
Density (DEN)	1.361+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (HVAP)	352.37+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	1173.0+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	55		(1)
H acceptors (HAC)	37		(1)
H donors (HD)	26		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	63		(1)
Koc (KOC)	1.0	pH 1 25 deg C	(1)
Koc (KOC)	1.0	pH 2 25 deg C	(1)
Koc (KOC)	1.0	pH 3 25 deg C	(1)
Koc (KOC)	1.0	pH 4 25 deg C	(1)
Koc (KOC)	1.0	pH 5 25 deg C	(1)
Koc (KOC)	1.0	pH 6 25 deg C	(1)
Koc (KOC)	1.0	pH 7 25 deg C	(1)
Koc (KOC)	1.0	pH 8 25 deg C	(1)
Koc (KOC)	1.0	pH 9 25 deg C	(1)
Koc (KOC)	1.0	pH 10 25 deg C	(1)
LOGD (LOGD)	-5.04	pH 1 25 deg C	(1)
LOGD (LOGD)	-4.93	pH 2 25 deg C	(1)
LOGD (LOGD)	-4.67	pH 3 25 deg C	(1)
LOGD (LOGD)	-4.44	pH 4 25 deg C	(1)

LOGD (LOGD)	-4.32	pH 5 25 deg C	(1)
LOGD (LOGD)	-3.90	pH 6 25 deg C	(1)
LOGD (LOGD)	-3.02	pH 7 25 deg C	(1)
LOGD (LOGD)	-2.51	pH 8 25 deg C	(1)
LOGD (LOGD)	-2.47	pH 9 25 deg C	(1)
LOGD (LOGD)	-3.06	pH 10 25 deg C	(1)
LOGP (LOGP)	0.105+/-1.030	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	1000 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	1000 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	180 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	5.3 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.3 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.1 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	5.2 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	1.1 g/L	Unbuffered Water, pH 8.62, 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.62 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.62 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.11 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0033 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00079 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00071 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0032 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00067 mol/L	Unbuffered Water, pH 8.62, 25 deg C	(1)
Molar Volume (MVOL)	1188.3+/-3.0 cm**3/mol	20 deg C, 760 Torr	(1)
Molecular Weight (MW)	1617.82		(1)
PKA (PKA)	3.23+/-0.10	Most Acidic, 25 deg C	(1)
PKA (PKA)	10.47+/-0.10	Most Basic, 25 deg C	(1)
Polar Surface Area (PSA)	646.31 A**2		(1)
Vapor Pressure (VP)	0 Torr	25 deg C	(1)

This substance may exist in multiple tautomeric forms. The predicted property values in this table are calculated based upon the displayed form and may therefore differ from experimental values based on the actual tautomeric ratio at equilibrium.

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.14 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 141:35974 CA
TI Fluorescent dye binding peptides
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees for the Leland Stanford Junior University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Provisional Ser. No. 104,465.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K001-13
ICS G01N033-533
NCL 530408000
CC 9-16 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6747135	B1	20040608	US 1999-419381	19991015
	US 2004176578	A1	20040909	US 2003-692151	20031014
PRAI	US 1998-104465P	19981016			
	US 1999-419381	19991015			

AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. The peptides find use in a variety of methods and approaches involving fluorophore dyes.

ST fluorescence dye binding peptide

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding peptides containing; fluorescent dye binding peptides)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye binding; fluorescent dye binding peptides)

IT Proteins
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye containing; fluorescent dye binding peptides)

IT Aptamers
(Peptide; fluorescent dye binding peptides)

IT Dissociation
Emission spectra
Fluorescence
Fluorescent dyes
Fluorescent substances
Protein sequences
(fluorescent dye binding peptides)

IT 265979-68-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Fluorescent dye complex with; fluorescent dye binding peptides)

IT 198139-49-0DP, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(Oregon Green 514; fluorescent dye binding peptides)

IT 2321-07-5DP, Fluorescein, peptide complex with 82354-19-6DP, Texas Red, peptide complex with 99752-92-8DP, Rhodamine Red, peptide complex with
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent dye binding peptides)

IT 700964-14-3 700964-15-4 700964-17-6 700964-18-7
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides)

IT 700964-05-2 700964-06-3 700964-07-4 700964-08-5 700964-09-6
700964-10-9 700964-11-0 700964-12-1 700964-13-2 700964-16-5
700964-19-8 700964-20-1 700964-21-2 700964-22-3 700964-23-4
700964-24-5 700964-25-6 700964-26-7 700964-27-8 700964-28-9
700964-29-0 700964-30-3 700964-31-4 700964-32-5 700964-33-6
700964-34-7 700964-35-8 700964-36-9
RL: PRP (Properties)

(unclaimed protein sequence; fluorescent dye binding peptides)

IT 47070-99-5 95088-49-6 110579-95-8 113965-79-0, 6-11-Peptide (hydra head-activator) 115084-19-0 119766-62-0 130094-09-6 135941-52-5
206750-67-6 211555-82-7 245759-07-3 246862-96-4 246862-97-5
246862-98-6 246862-99-7 246863-00-3 246863-03-6 246863-04-7
246863-05-8 246863-06-9 246863-07-0 246863-08-1 260055-30-9
265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6
265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3
265979-64-4 265979-65-5 265979-66-6 265979-69-9 265979-70-2
265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7
265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-81-5
265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0
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265979-93-9 265979-94-0 265979-95-1 265979-96-2 265979-97-3
265979-98-4 265979-99-5 265980-00-5 265980-01-6 265980-02-7
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700846-49-7 700846-50-0 700846-51-1 700846-52-2 700846-54-4
700846-55-5 700846-56-6 700846-65-7 700846-67-9
RL: PRP (Properties)
(unclaimed sequence; fluorescent dye binding peptides)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

(1) Aldwin; US 5491074 A 1996 CAPLUS
(2) Cull, M; Proc Natl Acad Sci U S A 1992, V89, P1865 CAPLUS
(3) Cwirla, S; Proc Natl Acad Sci U S A 1990, V87, P6378 CAPLUS
(4) Devlin, J; Science 1990, V249, P404 CAPLUS
(5) Hanes, J; Proc Natl Acad Sci U S A 1997, V94, P4937 CAPLUS
(6) Harrison, J; Methods Enzymol 1996, V267, P83 CAPLUS
(7) Katz, B; Biochemistry 1995, V34, P15421 CAPLUS
(8) Koivunen, E; Biotechnology 1995, V13, P265 CAPLUS
(9) Mattheakis, L; Proc Natl Acad Sci U S A 1994, V91, P9022 CAPLUS
(10) Matthews, D; Science 1993, V260, P1113 CAPLUS
(11) Nolan, G; Proc Natl Acad Sci U S S N No S A 1988, V85, P2603 CAPLUS
(12) Oldenburg, K; Proc Natl Acad Sci U S A 1992, V89, P5393 CAPLUS
(13) Rebar, E; Methods Enzymol 1996, V267, P129 CAPLUS
(14) Rebar, E; Science 1994, V263, P671 CAPLUS
(15) Roberts, R; Proc Natl Acad Sci U S A 1997, V94, P12297 CAPLUS
(16) Saggio, I; Biochem J 1993, V293, P613 CAPLUS
(17) Schatz, P; Biotechnology 1993, V11, P1138 CAPLUS
(18) Schatz, P; Methods Enzymol 1996, V267, P171 CAPLUS
(19) Scott, J; Proc Natl Acad Sci U S A 1992, V89, P5398 CAPLUS
(20) Scott, J; Science 1990, V249, P386 CAPLUS
(21) Smith, G; Science 1985, V228, P1315 MEDLINE
(22) Wennermers; Tetrahedron Letters 1994, P6413
(23) Yu, J; Methods Enzymol 1996, V267, P3 CAPLUS

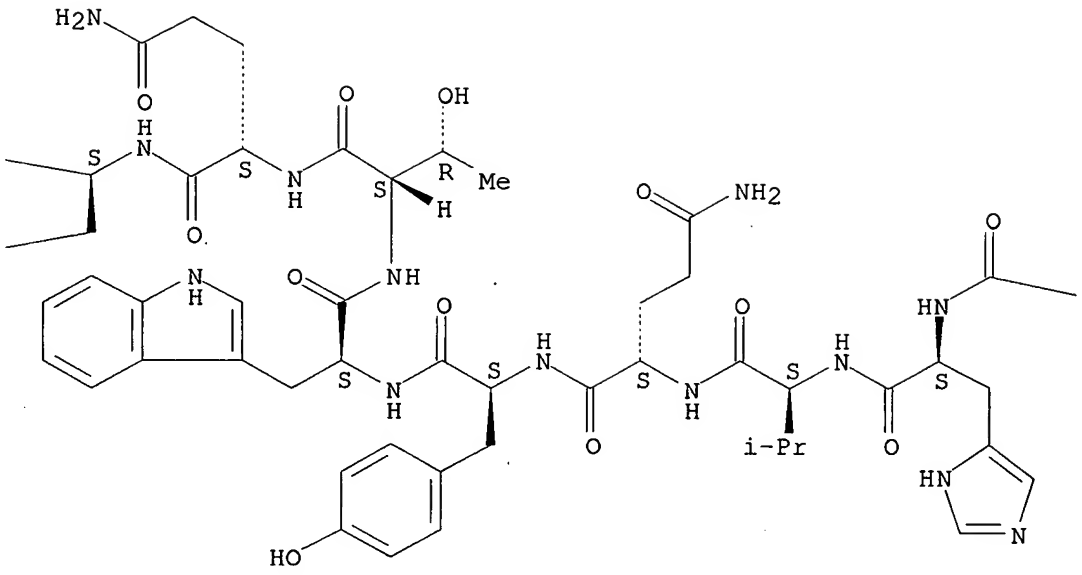
REFERENCE 2

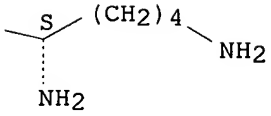
AN 132:319524 CA
TI Fluorescent dye binding peptides for the determination of biomolecules
IN Nolan, Garry P.; Rozinov, Michael N.
PA The Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K007-08
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023463	A2	20000427	WO 1999-US24266	19991015

WO 2000023463 A3 20000817
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1998-104465P 19981016
AB The present invention is directed to novel polypeptides, termed fluorettes, that bind with high avidity to fluorophore dyes. Peptides are selected from phage display libraries using the immobilized fluorophores. Fluorophores are selected from the group of Texas Red, Rhodamine Red, Oregon Green 514, and fluorescein. The peptides find use in a variety of methods and approaches involving fluorophore dyes.
ST fluorescence dye binding peptide fluorette phage library
IT Cytometry
(FACS (fluorescence-activated cell sorting); fluorescent dye binding peptides for determination of biomols.)
IT Resonance energy
(fluorescence, transfer, FRET; fluorescent dye binding peptides for determination of biomols.)
IT Biochemical molecules
Fluorescent dyes
Fluorometry
Genetic methods
Immobilization, biochemical
Phage display library
(fluorescent dye binding peptides for determination of biomols.)
IT Peptides, uses
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)
IT 2321-07-5 82354-19-6, Texas Red 99752-92-8, Rhodamine Red 178623-12-6 198139-49-0 265317-17-7 265317-40-6 265317-46-2 265317-48-4 265317-76-8 265317-77-9 265317-78-0 265317-89-3 265979-53-1 265979-54-2 265979-55-3 265979-56-4 265979-58-6 265979-59-7 265979-60-0 265979-61-1 265979-62-2 265979-63-3 265979-64-4 265979-65-5 265979-66-6 265979-67-7 265979-68-8 265979-69-9 265979-70-2 265979-71-3 265979-72-4 265979-73-5 265979-74-6 265979-75-7 265979-76-8 265979-77-9 265979-78-0 265979-79-1 265979-80-4 265979-81-5 265979-82-6 265979-83-7 265979-84-8 265979-85-9 265979-86-0 265979-87-1 265979-88-2 265979-89-3 265979-90-6 265979-91-7 265979-92-8 265979-93-9 265980-00-5 265980-01-6 265980-02-7 265980-03-8 265980-04-9 265980-05-0 265980-06-1 265981-56-4
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses)
(fluorescent dye binding peptides for determination of biomols.)
IT 266300-29-2 266300-30-5 266300-31-6 266300-32-7 266300-33-8 266300-34-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorescent dye binding peptides for determination of biomols.)
IT 47070-99-5 160612-18-0 247035-66-1 247035-86-5 247037-84-9 247037-91-8 247038-72-8 247078-49-5 250640-07-4 265980-07-2 266309-30-2 266309-33-5 266309-60-8 266310-02-5
RL: PRP (Properties)
(unclaimed protein sequence; fluorescent dye binding peptides for determination





```
=> s texas red and (fluorette or peptide)
         14771 TEXAS
        416707 RED
           519 REDS
        416969 RED
                 (RED OR REDS)
          1310 TEXAS RED
                 (TEXAS(W)RED)
             4 FLUORETTE
             3 FLUORETTES
             5 FLUORETTE
                 (FLUORETTE OR FLUORETTES)
        378033 PEPTIDE
        276979 PEPTIDES
        484208 PEPTIDE
                 (PEPTIDE OR PEPTIDES)
```

```
L3          207 TEXAS RED AND (FLUORETTE OR PEPTIDE)

=> s l3 and fluorette
             4 FLUORETTE
             3 FLUORETTES
             5 FLUORETTE
               (FLUORETTE OR FLUORETTES)
L4           3 L3 AND FLUORETTE

=> s l4 not l2
L5           1 L4 NOT L2

=> d l5 ibib abs hitstr tot

L5   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        1998:802926  CAPLUS
DOCUMENT NUMBER:         130:165114
TITLE:                   Evolution of peptides that modulate the
                         spectral qualities of bound, small-molecule
                         fluorophores
AUTHOR(S):               Rozinov, Michael N.; Nolan, Garry P.
CORPORATE SOURCE:        Department of Molecular Pharmacology, Stanford
                         University Medical Center, Stanford, CA, 94305-5332,
                         USA
SOURCE:                  Chemistry & Biology (1998), 5(12), 713-728
                         CODEN: CBOLE2; ISSN: 1074-5521
PUBLISHER:               Current Biology Publications
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Fluorophore dyes are used extensively in biomedical research to
     sensitively assay cellular constituents and physiol.  We have created, as
     proof of principle, fluorophore dye binding peptides that could
     have applications in fluorescent dye-based approaches in vitro and in
     vivo.  A panel of Texas red, Rhodamine red, Oregon
     green 514 and fluorescein binding peptides, termed here "
     fluorettes", was selected via biopanning of a combinatorial
     library of 12-mer peptides fused to a minor coat pIII protein of
     the filamentous bacteriophage M13.  The "best" fluorette
     sequences from each of the groups were subjected to further mutagenesis,
     followed by a second biopanning to select a new generation of improved
     fluorettes.  Phage were selected that had higher avidity for each
     fluorophore except Rhodamine red.  Of these, peptides were
     characterized that could specifically and with high affinity bind at least
     one dye, Texas red, in solution  In addition, the binding of
     certain peptides to Texas red shifted the
     peak excitation and/or the emission spectra of the bound dye.
     Peptides in the context of phage display could readily be selected
     that could bind to small-mol. fluorophores.  The affinities of selected
     mutant fluorettes could be increased by mutation and further
     selection.  Only a subset of the free peptides could bind free
     dyes in solution, suggesting that phage context contributed to the selection
     and ability of certain peptidic regions to independently bind the dyes.
     Future screens might lead to the creation of other dye-binding
     peptides with novel characteristics or Texas red
     derivs. with crosslinking substituents might be designed to increase the
     utility of the system.
REFERENCE COUNT:         35    THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> log y
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
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CA SUBSCRIBER PRICE	-2.34	-10.37

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BLAST SEARCH SEQ ID # 15

Distance tree of results NEW

Sequences producing significant alignments:	Score (Bits)	E Value
gi|78127855|gb|ABB22239.1| thymidine kinase-like protein [Ovine	29.5	25
gi|83642858|ref|YP_438145.1| ORF21 [Ovine herpesvirus 2] >gi|...	29.5	25
gi|146296177|ref|YP_001179948.1| Allergen V5/Tpx-1 family pro...	28.6	46
gi|66804519|ref|XP_635992.1| hypothetical protein DDBDRAFT_01...	28.6	46
gi|60681778|ref|YP_211922.1| hypothetical protein BF2300 [Bac...	28.2	61
gi|15614366|ref|NP_242669.1| hypothetical protein BH1803 [Bac...	28.2	61
gi|89097516|ref|ZP_01170405.1| hypothetical protein B14911_27...	28.2	61
gi|153940849|ref|YP_001391336.1| SCP-like extracellular prote...	27.8	82
gi|149181592|ref|ZP_01860086.1| hypothetical protein BSG1_137...	27.8	82
gi|149179719|ref|ZP_01858224.1| hypothetical protein BSG1_018...	27.8	82
gi|149182265|ref|ZP_01860745.1| hypothetical protein BSG1_199...	27.8	82
gi|148379973|ref|YP_001254514.1| exported protein [Clostridiu...	27.8	82
gi|126651239|ref|ZP_01723449.1| hypothetical protein BB14905_...	27.8	82
gi|28211946|ref|NP_782890.1| transporter [Clostridium tetani ...	27.8	82
gi|13507984|ref|NP_109933.1| peptide deformylase [Mycoplasma ...	27.8	82
gi|23098322|ref|NP_691788.1| hypothetical protein OB0867 [Oce...	27.8	82
gi|89097558|ref|ZP_01170447.1| hypothetical protein B14911_28...	27.8	82
gi|89097846|ref|ZP_01170733.1| YkwD [Bacillus sp. NRRL B-1491...	27.8	82
gi|125972821|ref|YP_001036731.1| Allergen V5/Tpx-1 related [C...	27.8	82
gi|120435753|ref|YP_861439.1| cbb3-type cytochrome c oxidase ...	27.4	110
gi|69935869|ref|ZP_00630756.1| conserved hypothetical protein...	27.4	110
gi|46139389|ref|XP_391385.1| hypothetical protein FG11209.1 [Gib	27.4	110
gi|156866610|gb|EDO59982.1| hypothetical protein CLOLEP_02799 [C	26.9	148
gi|83643746|ref|YP_432181.1| predicted membrane protein [Hahe...	26.9	148
gi|157353561|emb|CAO46078.1| unnamed protein product [Vitis vini	26.5	198
gi|118729670|ref|ZP_01578187.1| glucose sorbosone dehydrogena...	26.5	198
gi|71282430|ref|YP_269817.1| hypothetical protein CPS_3120 [C...	26.5	198
gi|58617024|ref|YP_196223.1| thiamine biosynthesis protein Th...	26.5	198
gi|57239026|ref|YP_180162.1| thiamine biosynthesis protein Th...	26.5	198
gi|27377860|ref|NP_769389.1| probable C4-dicarboxylate-bindin...	26.5	198
gi|145580745|gb|ABP87526.1| NADH dehydrogenase subunit 2 [Ano...	26.1	266
gi|153893299|ref|ZP_02014054.1| hypothetical protein ObacDRAF...	26.1	266
gi|116073638|ref|ZP_01470900.1| hypothetical protein RS9916_3...	26.1	266
gi|155368551|emb|CAM98568.1| NADH4 protein [Ailuropoda melanoleu	25.7	356
gi|151942736|gb|EDN61082.1| multidrug transporter [Saccharomyces	25.7	356
gi|154298124|ref|XP_001549486.1| hypothetical protein BC1G_12...	25.7	356
gi|148298641|ref|YP_001249293.1| NADH dehydrogenase subunit 4...	25.7	356
gi|145517869|ref|XP_001444812.1| hypothetical protein [Parame...	25.7	356
gi|119859347|ref|ZP_01640763.1| peptidase S9, prolyl oligopep...	25.7	356
gi|116668578|ref|YP_829511.1| glycosyl transferase, family 2 ...	25.7	356
gi|115494701|ref|YP_778730.1| NADH dehydrogenase subunit 4 [P...	25.7	356
gi|111064208|gb|EAT85328.1| hypothetical protein SNOG_07862 [Pha	25.7	356
gi|111061930|gb|EAT83050.1| hypothetical protein SNOG_09785 [Pha	25.7	356
gi|121607211|ref|YP_995018.1| Histidinol dehydrogenase [Vermi...	25.7	356
gi|89145491|gb|ABD61942.1| ORF1 [Torque teno virus]	25.7	356
gi|104774160|ref|YP_619140.1| DNA topoisomerase I [Lactobacil...	25.7	356
gi|90416311|ref|ZP_01224243.1| probable lipoprotein signal pe...	25.7	356

>**gi|78127855|gb|ABB22239.1|** thymidine kinase-like protein [Ovine herpesvirus 2]
Length=569

 Score = 29.5 bits (62), Expect = 25
 Identities = 7/9 (77%), Positives = 9/9 (100%), Gaps = 0/9 (0%)

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Query  2    PVQYWTQMF  10
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Sbjct  280  PVQYWTQVY  288
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>**gi|83642858|ref|YP_438145.1|** ORF21 [Ovine herpesvirus 2]
gi|61970972|gb|AAX58057.1| ORF21 [Ovine herpesvirus 2]
Length=569

 Score = 29.5 bits (62), Expect = 25
 Identities = 7/9 (77%), Positives = 9/9 (100%), Gaps = 0/9 (0%)

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Query  2    PVQYWTQMF  10
            PVQYWTQ++
Sbjct  280  PVQYWTQVY  288
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>**gi|146296177|ref|YP_001179948.1|** Allergen V5/Tpx-1 family protein [Caldicellu
DSM 8903]
gi|145409753|gb|ABP66757.1| Allergen V5/Tpx-1 family protein [Caldicellulosir
DSM 8903]
Length=203

 Score = 28.6 bits (60), Expect = 46
 Identities = 7/8 (87%), Positives = 7/8 (87%), Gaps = 0/8 (0%)

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            V YWTQMF
Sbjct  192  VLYWTQMF  199
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>**gi|66804519|ref|XP_635992.1|** hypothetical protein DDBDRAFT_0188654 [Dictyostel
AX4]
gi|60464332|gb|EAL62481.1| hypothetical protein DDBDRAFT_0188654 [Dictyosteliu
AX4]
Length=871

 Score = 28.6 bits (60), Expect = 46
 Identities = 6/8 (75%), Positives = 7/8 (87%), Gaps = 0/8 (0%)

```
Query  4    QYWTQMFY  11
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Sbjct  247  QYWNEMFY  254
```

>**gi|60681778|ref|YP_211922.1|** hypothetical protein BF2300 [Bacteroides fragilis
gi|60493212|emb|CAH07994.1| putative membrane protein [Bacteroides fragilis NC
Length=166

 Score = 28.2 bits (59), Expect = 61
 Identities = 8/15 (53%), Positives = 8/15 (53%), Gaps = 6/15 (40%)

```
Query  4    QYWTQM------FYT  12
            QYW QM      FYT
Sbjct  117  QYWIQMTDKGEKFYT  131
```

>**gi|15614366|ref|NP_242669.1|** hypothetical protein BH1803 [Bacillus halodurans
gi|10174421|dbj|BAB05522.1| BH1803 [Bacillus halodurans C-125]
Length=207

 Score = 28.2 bits (59), Expect = 61

BLAST SEARCH

SEQ ID # 1

Distance tree of results NEW

Sequences producing significant alignments:	Score (Bits)	E Value
ref|NP_691788.1| hypothetical protein OB0867 [Oceanobacillus ...	29.9	19
ref|YP_001179948.1| Allergen V5/Tpx-1 family protein [Caldice...	28.6	46
ref|XP_635992.1| hypothetical protein DDBDRAFT_0188654 [Dicty...	28.6	46
ref|NP_242669.1| hypothetical protein BH1803 [Bacillus halodu...	28.2	61
ref|ZP_01170405.1| hypothetical protein B14911_27995 [Bacillu...	28.2	61
ref|ZP_01170733.1| YkwD [Bacillus sp. NRRL B-14911] >gb|EAR66...	28.2	61
ref|YP_001391336.1| SCP-like extracellular protein [Clostridi...	27.8	82
ref|ZP_01860086.1| hypothetical protein BSG1_13771 [Bacillus ...	27.8	82
ref|ZP_01858224.1| hypothetical protein BSG1_01850 [Bacillus ...	27.8	82
ref|ZP_01860745.1| hypothetical protein BSG1_19909 [Bacillus ...	27.8	82
ref|YP_001254514.1| exported protein [Clostridium botulinum A...	27.8	82
ref|ZP_01723449.1| hypothetical protein BB14905_01215 [Bacill...	27.8	82
ref|NP_782890.1| transporter [Clostridium tetani E88] >gb|AAO...	27.8	82
ref|NP_109933.1| peptide deformylase [Mycoplasma pneumoniae M...	27.8	82
ref|ZP_01170447.1| hypothetical protein B14911_28205 [Bacillu...	27.8	82
ref|YP_001036731.1| Allergen V5/Tpx-1 related [Clostridium th...	27.8	82
ref|NP_899531.1| conserved hypothetical protein [Vibrio phage...	27.4	110
ref|XP_391385.1| hypothetical protein FG11209.1 [Gibberella zeae	27.4	110
ref|YP_432181.1| predicted membrane protein [Hahella chejuens...	26.9	148
ref|XP_001638630.1| predicted protein [Nematostella vectensis...	26.5	198
ref|XP_001539048.1| predicted protein [Ajellomyces capsulatus...	26.5	198
ref|NP_612690.1| tegument protein UL47 [Chimpanzee cytomegalo...	26.5	198
ref|YP_269817.1| hypothetical protein CPS_3120 [Colwellia psy...	26.5	198
ref|NP_769389.1| probable C4-dicarboxylate-binding protein [B...	26.5	198
ref|ZP_01925098.1| hypothetical protein VvadDRAFT_1379 [Victi...	26.1	266
ref|ZP_01922988.1| hypothetical protein VvadDRAFT_2084 [Victi...	26.1	266
gb|ABB22239.1| thymidine kinase-like protein [Ovine herpesvirus	26.1	266
ref|NP_825172.1| hypothetical protein SAV3995 [Streptomyces a...	26.1	266
ref|YP_438145.1| ORF21 [Ovine herpesvirus 2] >gb|AAX58057.1| ...	26.1	266
gb|EAL41048.3| AGAP010349-PA [Anopheles gambiae str. PEST]	25.7	356
ref|XP_001600764.1| PREDICTED: similar to conserved hypotheti...	25.7	356
emb|CAM98568.1| NADH4 protein [Ailuropoda melanoleuca]	25.7	356
gb|EDN61082.1| multidrug transporter [Saccharomyces cerevisiae Y	25.7	356
ref|YP_001249293.1| NADH dehydrogenase subunit 4 [Ailuropoda ...	25.7	356
ref|ZP_01815912.1| hypothetical protein VSWAT3_15599 [Vibrion...	25.7	356
gb|EAX02136.1| protein regulator of cytokinesis 1, isoform CR...	25.7	356
ref|ZP_01640763.1| peptidase S9, prolyl oligopeptidase active...	25.7	356
ref|YP_829511.1| glycosyl transferase, family 2 [Arthrobacter...	25.7	356
ref|XP_559110.2| ENSANGP00000027759 [Anopheles gambiae str. PEST	25.7	356
ref|YP_778730.1| NADH dehydrogenase subunit 4 [Phocarctos hoo...	25.7	356
ref|XP_510600.2| PREDICTED: protein regulator of cytokinesis 1 [	25.7	356
ref|XP_623923.2| PREDICTED: similar to CG32415-PA [Apis mellifer	25.7	356
ref|XP_001098763.1| PREDICTED: similar to protein regulator o...	25.7	356
ref|XP_001654771.1| conserved hypothetical protein [Aedes aeg...	25.7	356
ref|ZP_01224243.1| probable lipoprotein signal peptide [marin...	25.7	356

ref|XP_001459504.1|	hypothetical protein [Paramecium tetraure...	24.8	642
ref|XP_001433882.1|	hypothetical protein [Paramecium tetraure...	24.8	642
ref|XP_001426188.1|	hypothetical protein [Paramecium tetraure...	24.8	642
ref|XP_001426294.1|	hypothetical protein [Paramecium tetraure...	24.8	642
ref|XP_001423712.1|	hypothetical protein [Paramecium tetraure...	24.8	642
ref|XP_415358.2|	PREDICTED: similar to SBF1 protein, partial [Ga	24.8	642
gb|EAU91164.1|	hypothetical protein CC1G_03332 [Coprinopsis c...	24.8	642
ref|ZP_01115747.1|	predicted membrane protein [Reinekea sp. M...	24.8	642

Alignments

>ref|NP_691788.1| hypothetical protein OB0867 [Oceanobacillus iheyensis HTE831]
dbj|BAC12823.1| hypothetical conserved protein [Oceanobacillus iheyensis HTE83
Length=278

Score = 29.9 bits (63), Expect = 19
Identities = 8/12 (66%), Positives = 9/12 (75%), Gaps = 3/12 (25%)

```
Query  2    HVQ---YWTQMF  10
            HV+   YWTQMF
Sbjct  264  HVENGNYWTQMF  275
```

>ref|YP_001179948.1| Allergen V5/Tpx-1 family protein [Caldicellulosiruptor sac
DSM 8903]
gb|ABP66757.1| Allergen V5/Tpx-1 family protein [Caldicellulosiruptor saccharo
DSM 8903]
Length=203

Score = 28.6 bits (60), Expect = 46
Identities = 7/8 (87%), Positives = 7/8 (87%), Gaps = 0/8 (0%)

```
Query  3    VQYWTQMF  10
            V YWTQMF
Sbjct  192  VLYWTQMF  199
```

>ref|XP_635992.1| hypothetical protein DDBDRAFT_0188654 [Dictyostelium discoide
AX4]
gb|EAL62481.1| hypothetical protein DDBDRAFT_0188654 [Dictyostelium discoideum
AX4]
Length=871

Score = 28.6 bits (60), Expect = 46
Identities = 6/8 (75%), Positives = 7/8 (87%), Gaps = 0/8 (0%)

```
Query  4    QYWTQMFY  11
            QYW +MFY
Sbjct  247  QYWNEMFY  254
```

>ref|NP_242669.1| hypothetical protein BH1803 [Bacillus halodurans C-125]
dbj|BAB05522.1| BH1803 [Bacillus halodurans C-125]
Length=207

Score = 28.2 bits (59), Expect = 61
Identities = 6/7 (85%), Positives = 6/7 (85%), Gaps = 0/7 (0%)

```
Query  4    QYWTQMF  10
             YWTQMF
Sbjct  198  HYWTQMF  204
```